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THE IMPLICATIONS OF ABNORMAL PSYCHOLOGY IN CLINICAL OPTOMETRY*

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A tremendous interest is being manifested in psychology, — especially abnormal psychology at the present time. In every branch of medicine and the allied sciences the application and the integration of psychological theory and techniques is being attempted in conjunction with the particular specialties. The internist, the gynecologist, the genito-urinary and skin specialists, the ophthalmologist, the optometrist and in fact all clinicians are focusing their interest on this embryonic discipline. It must be said that their interest is often tinged with scepticism and incredulity as well as amazed gratification.

The lay public, ever quick to note changes on the horizon, have turned their scrutiny on psychology with a vengeance. Certainly Hollywood has exploited public interest to the utmost and we rarely see a picture these days that does not utilize psychological techniques or the psychological jargon.

Not all of the emphasis has been fostered by over-conscientious journalists and Hollywood's version of psychotherapy. Much of the public attention to psychology is based on entirely valid grounds. The fact that a million recruits suffered from dyslexia, — that an even greater number were rejected for neuropsychiatric ailments, — the fact that we can't build mental hospitals and train personnel quickly enough, that having emotional difficulties and being seen by a psychiatrist is no longer cause for shame have been brought to the fore of the public.

If psychology is so important to clinicians for diagnostic and therapeutic purposes, why is it that they have only recently arrived at a nodding acquaintance with this science? To find the reason for this seeming neglect we must glance briefly at the history of medicine.

* Address delivered before American Optometric Association, Atlantic City, June 17.

From time immemorial discerning physicians have known that the emotional life had something to do with illness. 500 B C., Hippocrates, Socrates and others could see the relationship, although it should be mentioned that they had little physiological and no overabundance of psychological material to relate. Through the centuries the emotional component in illness was mentioned only from time to time and no systematized investigation was begun until relatively recently.

Unfortunately the introduction of structural concepts by Virchow through his text on cellular pathology led to a separation of psyche and soma, — between the mind and body, if you will. Disease came to be considered only as a disorder of cells and organs. As Weiss and English assert in their text on Psychosomatic Medicine, the "machine-age" of medicine was inaugurated. Physicians strove to become specialists for various organs and with these specialists came instruments of precision.

Tremendous strides were made in the study of physiology, aided in no small part by the microscope, X-Ray, electrocardiograph and a host of other investigational media. Mountains of facts accumulated and the exact scientists proceeded to raise the mountains to ever increasing heights for their particular disciplines. As Dr. Flanders Dunbar appropriately noted in her monumental book on Emotions and Bodily Changes, we reached a point in the specialties where we were blocked by a lack of understanding between them. This was certainly not due to paucity of knowledge, for as she puts it, "We know more than we know we know." Or to reword this, we have failed to apply relationships, — to see the configuration, — to integrate our scientific knowledge.

The psychological background of the patient was neglected. The emotional component was

either held in contempt or ignored. The body mattered all. The person in the body was disregarded. This was the somatogenic era and it was in this atmosphere that optometry grew up.

This atmosphere was an isolationist one. It was based on the fallacy that if you attend to your own little area, the other areas will take care of themselves. This is a fallacy both in science as well as politics.

The optometrist is a clinician. He cannot treat the eyes alone. No matter how profound his knowledge of disease processes and refraction, he cannot properly essay his patient without taking into consideration the personality behind the eyes. George S. Derby stated it admirably in these words, "Too often the neurotic patient is dismissed or got rid of with a minor change in the prescription, when what he really needs is a careful analysis of his condition and an explanation of how his various aches and pains should be interpreted."

This is not to say that every physician, dentist, optometrist, — that every clinician must become a psychologist. Rather they should be familiar with psychology to the same degree that they are familiar with the other subjects that make up the curriculum for their profession. The optometrist should have an understanding of psychology just as he has of related medical subjects. To revert to our political analogy, one does not have to live or travel in China to be interested and to comprehend Chinese affairs.

Nor is it necessary for the optometrist to appreciate the dynamics of personality structure for the patient's sake alone. It is essential for the optometrist's best interest as well. I have lately seen a number of men professionally who had embarked on optometric careers blithely of spirit. Although my diagnostic term for their ailment may be a new word, I'm sure that you are familiar with the symptomatology. The disease entity of which I speak is "optometromania." The victims of this strange malady are prematurely gray, bald or both. They stare off vacantly into space and are very difficult to live with by day. At night they have disquieting dreams in which they an-

nihilate hordes of troublesome patients and fight with fiercely sadistic diopters.

These men are competent optometrists, but they try to treat the eyes with an utter disregard for the sick personalities of their patients. After a day at the office they are quite irritable and confused about humanity in general. They are quite insecure and they wonder how they erred as optometrists. They wait impatiently for the next convention, when they can run off from it all temporarily. The non-clinician is actually in the same predicament, as for example the salesman. But the non-clinician does not attempt to treat his fellow men and it is not so essential for him to be conversant with the emotional component in others.

I have strongly emphasized the importance of the emotions in illness and the advantage to the clinician of psychological knowledge. What illnesses are psychological or emotional and how do such illnesses manifest themselves?

Any and every area of the patient's life may be involved. There may be generalized anxiety or the anxiety may be specific and centered about some situation or particular organ of the body. There may be no demonstrable lesion despite the patient's fervent complaints. In such cases the ailment is labeled as functional and the patient is said to be suffering from hysteria.

Not infrequently there is a lesion, — there is evidence of a definite nature that a pathological process is going on. Yet when some such patients are carefully explored psychologically as well as medically, an emotional pattern of reactions may be found in a large number of cases. Because of the fact that the psychological and organic aspects in these patients are interrelated, — inseparably intertwined, they are termed psychosomatic. Their management frequently requires the cooperation of specialists in various disciplines. I should like to discuss psychosomatics generally at first and then with respect to visual ailments.

Not all diseases are psychosomatic and the men working in the field are fully aware of
(Please turn to page 13)

THE PSYCHOLOGY OF MUSCLE TRAINING OF THE EYE

By William Smith, O.D., D.O.S.
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Eye muscle training—or to use the scientific term, Orthoptics is an educative procedure. It is a system, based on the newer conceptions in physiology, psychology and physiological optics. The visual brain centers are re-educated and trained to receive the stimuli in the natural mode, clearly and along normal pathways. By the Orthoptic method an attempt is made to establish natural processes of visual perception.

There are two sub-divisions in Orthoptics; One which concerns itself with the training of neuro-muscular imbalances commonly referred to as Heterophorias; the other with the training of squints or strabismus. The *modus operandi* in the training of the former differs considerably from that of training the latter type of anomaly. In the heterophoria types innervation training primarily is given. In the heterotropia types acquired and improperly developed visual habits must be broken up and new ones—new in the specific case—must be developed in their place. In cases of strabismus the neural pathways concerned with the visual and fusional physiology respond rather well to training. Clear, single binocular vision is an inborn tendency. It is therefore expected that any deviation from the normal would present a handicap—one for which there is an innate desire for amelioration by natural processes which are inherent, and for which the brain has a predilection.

In determining the training procedure for a case of heterophoria, it is first necessary to eliminate the presence of toxemias, pathology both ocular and systemic, and congenital defects. After these factors are eliminated, the status of the myologic apparatus of the eye is ascertained. The ductions, fusion degree and fusional reserves, both negative and positive, and the degree of stereopsis are determined. The tonicities are measured. These, together

with the duction and fusion amplitudes are measured and compared with the table of relative amplitude values of Donders. All these data are recorded and serve as the basis for the program which is to be outlined for the particular case.

In the training of strabismus by the orthoptic procedure, either as pre-surgical or post-surgical or in an effort to eliminate surgery, careful observation must be made before a definite program for training is outlined. Surgical procedures for the correction of strabismus do not, in a true sense, eliminate the anomaly. If successful, the operation merely corrects the eye cosmetically. The low grade visual acuity, the suppression and the uselessness of the affected eye in binocular perception are not helped in the least. Orthoptic training in conjunction with surgical correction, instituted either before or immediately after the operation, is desirable if there is to be absolute amelioration.

The correction of strabismus by the orthoptic technique, without recourse to surgery, includes the development of every phase in the visual function. The development of the visual acuity to the highest possible level and the elimination of the suppression area in visual centers of the brain are the first steps in the training procedure. The visual acuity for both near and distance is trained and developed to the maximum. Macular vision is re-established in the course of training before any attempt at fusion or duction training is made.

From this statement it would appear that the treatment or elimination of strabismus by the orthoptic procedure is divided into two parts: (1) the elimination of suppression together with the raising of visual acuity; and (2) the training and development of fusion, duction, and stereopsis. The elimination of suppression is extremely essential in squint orthoptics.

Amblyopia-ex-anopsia which is frequently associated with strabismus may be defined as low visual perception due to the insensitiveness of the receptive and transmitting fibres of the affected eye. Ophthalmoscopic examination of an amblyopic fundus will disclose nothing abnormal either in the macula or in the papilla. The fundus has all the appearance of a normal one and is usually diagnosed as such. The abnormality, if such exists, is in the visual centers of the brain. This can often be verified on the campimeter and on the tangent screen.

What occurs when images of an object fall upon the retinae of a pair of normal eyes? How is the apparatus of binocular vision functioning? The apparatus of binocular vision is usually described by Müller as a reflex arc made up of a centripetal path, a cerebral center, and a centrifugal path.

The centripetal path is purely sensory. Müller has advanced the theory of corresponding retinal points which states that there is a coupling of the retinal points in the right retina with the corresponding retinal points in the left retina. The fovea and its immediate area have their own path of distinct conduction.

Professor Hensen of Sweden, more than thirty-five years ago, introduced a technique for the determination of retinal correspondence which the late Dr. Alfred Bielschowsky, of Dartmouth Medical School, introduced in his recent writings. It serves a double purpose: it determines the existence of a congenital defect in the fusion centers, and it helps to determine the status of the binocular perceptual function.

Insofar as the fovea is concerned, the fact is certain. Pathology, embryology, and physiology all prove the individuality of the papillo-macular bundle. There is, however, no absolute need for a rigorous anatomical coupling. Such a coupling may be only physiological to be quite sufficient. Starting from corresponding points in the two retinae, the image of the right eye and that of the left eye are propagated toward the cerebral center, and obviously, in order that the two images may be fused, the two paths must meet. The arrangement of the visual path and the decussation of the bundles proceeding from each half of the retina are

too lengthy to be discussed here. At the very beginning of each optic tract the fibres from one half of the retina meet with the corresponding fibres of the other side, and a more perfect union of the corresponding fibres takes place in the ganglia at the base of the brain. What travels from there to the cerebral center is really a resultant.

A clear pathway must therefore exist for the conveyance of the external impulse which impinges upon the retinae. The image is carried along the optic tracts to their corresponding brain centers. Any interference, whether mechanical, physical, pathological, or psychic, will prevent the act from being complete with the result that there is confusion. This is precisely what happens before amblyopia-ex-anopsia sets in. It probably begins with an unconscious feeling or sensation of confusion; then in some cases it is probably manifested by incoordination and diplopia. To simplify matters, suppression is resorted to and gradually the visual centers build up a defense (or an escape) against this constant interference and confusion: Areas are developed in which the bothersome images are ignored and suppression becomes fixed. In time, a definite area, described as the suppression area, becomes developed and the pathway of conductivity becomes dull, obscured, and often times obliterated.

All this has its beginning in some form of heterotropia, either constant or periodic. In the periodic types the danger of the incidence of amblyopia-ex-anopsia is not so great as in the constant types. But any periodic strabismus may turn into a constant type and the consequences which may follow are too well known to be repeated. Amblyopia-ex-anopsia follows in all such cases. The visual centers in the brain which are related to the affected eye soon learn to ignore the confusing image and gradually the eye learns that it can forget how to see and yet remain open.

The importance of the elimination of the suppression area and the raising of the visual acuity to at least 20/50, or, if possible, better, are imperative before the second step in the training is undertaken. In some instances

(though not often) as suppression becomes eliminated and the visual acuity is improved, diplopia may appear. Such an occurrence is a valuable sign: an indication that the case is working toward a successful conclusion. Diplopia in this case should be encouraged and as soon as it is deemed advisable, the second phase of the training program should be instituted. It is advisable, however, to continue training the visual acuity even during the fusion training period, and to carry this on throughout the entire duration of treatment.

This second part of the re-educative technique consists of binocular fixation, super-imposition, and first degree fusion training. Binocular fixation, first monocularly and then simultaneously with the two eyes, is the first step in the procedure. The habit of seeing with both eyes at the same time must be intensified and then developed to such a degree that the brain will accept it as a natural function. The presence of diplopia helps to bring about this reaction. As soon as simultaneous binocular vision becomes habitual, super-imposition training is started. This frequently calls for a technique entirely different from the program as arranged. It may be necessary to place the targets which are used in super-imposition training at a position contrary to the one accepted. The easiest point of super-imposition is not the easiest point of fusion, and it is necessary at times to develop a tolerance for super-imposition even if it is of the opposite type as required in the specific case procedure. We advocate placing targets at relative orthophoria position and working from that point onward.

The third phase follows: fusion training and duction training. With clear vision established and the suppression area eliminated, the visual centers in the brain are trained to accept simple fusion, which is an innate tendency. With fusion training comes the development of the duction power of the muscles under training. The entire procedure of super-imposition, fusion, and duction training must be carried out in as thorough a manner as

possible. The visual centers in the brain must be taught to accept the genuine and natural mode in place of the abnormal and unnatural. The habit of seeing binocularly must be intensified and the two images which are registered in the visual centers must be made to blend as a single, clearly defined image. This can be accomplished by repetition and by repeated stimulation.

As the case progresses and fusion and duction powers become developed, stereopsis training is commenced. At first it may be necessary to teach the visual centers the difference between a flat and a stereoscopic perception. This is intensified by repeated stimulation and a record may be kept of the degree of stereopsis.

In all cases of strabismus the essential factor lies in the re-establishment of the visual reflex arc. When the path of conductivity is fully established, the possibility for the successful conclusion of a case may be very great. Proper procedure, thoroughness in the conclusion of each essential step, and generally, the intelligent handling of the patient, is bound to bring about successful results. This applies to all types of orthoptics, whether squint or the imbalance types. The same holds true whether the case has been treated surgically or not.

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Omega Epsilon Phi

D. C. MacFarlane

One of the first events on the fall social calendar of the Chapter was a pre-examination smoker which took place September 16 at the Ritz Plaza Halls, scene of many a previous fraternity hoedown. The number of brothers who attended was limited by the awesome shadow of the coming exams, but those care-free and confident souls who did turn up had a good time. Besides the usual refreshments there was music, contributed by Russ Bragdon at the piano and John Wentzell in song. Some of the brothers felt inspired to help John out on the second choruses.

Several alumni were present, among whom were Drs. Kofos, Wilson, Cramer, and Calmus.

Let us hope that future activities of this kind will stimulate more response; for in the last analysis, viewing the problem in the cold light of reason and in relation to the U. N. and the Marshall Plan, where else can you get beer for free?

Last spring the Chapter created for the first time an award in honor of our departed charter member, Joseph J. Scanlon, for outstanding clinical ability, limited to the seniors who have completed the last three years of the course here and stand in the first twenty per cent of their class in academic standing. The list of requirements is long, and intended to assure the brothers that the winner will be superior not only in school but also in his or her ethical standards and skill in practice.

At graduation, in June, the first recipient of this award was presented with a certificate of award, of about the size and shape of the school diploma, which he may frame and hang on his office wall. In addition, a plaque, has now been prepared and engraved with the first winner's name, Bernard Potvin '47. The school will receive this plaque at a formal presentation ceremony, to be held in the near future.

Pi Omicron Sigma

Joseph Barresi

Well, Pi Omicron Sigma has started out its 35th big year with a resounding bang that is still echoing over Boston Harbor, the Ritz Plaza Halls, and the banks of the Charles River. Let me commence by telling about the moonlight cruise that was put on August 21. Early in the evening, the *S.S. Pilgrim Belle* was boarded by the members of P.O.E. with their female companions. A three hour cruise around Boston Harbor followed and these optometric sailors and their girls danced until the boat docked.

Thursday, September 11, Pi Omicron Sigma held its 35th anniversary smoker and played host to members of the freshman class, alumni, and members of the faculty. Among the honored guests were Dr. Foster Namias, Dr. Frederick Farnum, Dr. John Asarkoff, and Dr. Louis Wekstein. Several alumni were also on hand to complete the gathering. Irving Greenblatt was our very witty and talented master of ceremonies. After the refreshments were served, Dr. Wekstein consented to demonstrate the act of hypnosis on "Helmholtz" Kozol. Now we call Frank, "Francisco, the great concert pianist." Francisco had terrific visual acuity under hypnosis because I'm told by Saltzman (he was behind, not under the piano as all reports say) that Frank read sheets and sheets of music that wasn't ever there.

Orchids to the committees in charge for the wonderful job in planning and executing the smoker so well. I am sure I speak for the other P.O.E. men when I say that I am really looking forward to the other social functions we have planned for this season.

In the immediate future, P.O.E. is holding its "Spotlight night" for the freshmen pledges. This event is to be followed in early October by the final ritual stag. Plans are now taking definite pattern for our annual Poverty Party on October 31. As Scott once said time rolls his ceaseless course. See you next month.

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the new Boston telephone directory appears a few weeks hence, anyone who had not done so make whatever "changes" were necessary to make his listing conform to AOA professional standards.

We were rather impressed with this announcement; for in it, we believe, lies the answer to many of optometry's problems. The listing of optometrists in the Boston telephone directory is a credit to the city's practitioners: with few exceptions it bears comparison with the pages devoted to medical practitioners. It is also well-known that the effort to eliminate the commercial look from optometric offices in the city has had great success, so that the face which Boston optometry shows the public is one in which the entire profession may well feel pride.

There is no law that compels a professional man to establish himself in professional surroundings, or otherwise to respect his code of ethics. He does so because he knows that such conduct means greater returns for himself, not only financially but in prestige, self-respect, and personal health as well. How paradoxical it is that a man will go through the trouble and expense of a professional education, and then negate all its advantages by conducting his profession as a business, with all its aggravation, risks, and professional opprobrium!

Boston optometrists have indeed come a long way toward ridding themselves of the stigmas remaining from the past by fulfilling their professional and moral obligations to their patients. In so doing, they have also insured themselves a far more satisfying and probably a longer life than their less professionally-minded colleagues. How much happier would be the situation of every optometrist if all availed themselves of the privileges their license to practice offers them!

J. G.

From the Editor

We had the privilege several weeks ago of attending the monthly meeting of the Boston Society of Optometrists. In addition to an excellent lecture and demonstration of hypnosis by MSO instructor Dr. Louis Wekstein, the student guests were also present at the Society's business meeting, and were thus introduced to that part of optometric life that goes on outside the office.

During the meeting Dr. Henry Harmon, president of the Society, suggested that when

Eye-Drops

by John Wentzell

Seven people including my mother read my last article, and with the hopes of hitting the unprecedented circulation of ten with this issue, I have once more plunged to the upper extremity of my Ethmoidal Foramen to uncover material essential to the countless emaciated citizens who are groping for the plum of Optometric Professionalism.

Pertinent "queries" have been received and edited by my staff, and for this publication, I have selected one which comes from the Amalgamated Union of Eyebrow Pluckers.—Local #2.5, Bradycardia, New Zealand. Their question:

"Do you believe that keratoglobus pertains in any way to the method in which a Wollaston prism is employed at a working distance of 3.987 cm. before an esotropic eye in which herpes zoster ophthalmicus is prevalent?"

Hmmm, bright people, New Zealanders . . . An excellent question, however, and an equally opportune moment to discuss the unusual pathology uncovered in the correct diagnosis of Durocher's epileptic orthophoric bronchitis.

This is an unusual and alarming condition which has recently appeared among the natives of West Medford, who through an unusual change in atmospheric conditions have developed a decided proficiency in revolving the eyeball in such a way as to enable them to maintain single binocular vision through their right nostril.

Phoria testing in this case will only leave you frustrated gentlemen, and as for skiametry—a retinoscope applied to one of these revolving eyes would give rise to a reflex closely approximating the lighting system at Braves Field. An eye with the behavior of a graduated yo-yo calls for a clinical test which employs definite unorthodox tendencies. If I am nothing else brethren, I am unorthodox . . . Thus, may

I present for your consideration The Forceptus internal gland cure.

In order that we may inhibit the revolving axis of the eye, inject just inferior to the left ear, 17 mg. of atropene. This will quiet the patient down, rendering him numb for a period of approximately three weeks. Do not, under any circumstances, reveal this to him at the outset, since for the success of this test it is essential that the patient be in a complacent frame of mind. At the conclusion of the examination, you may inform him if you wish, since he won't be able to answer you anyway.

Clinically, of course, this examination is of the Objective type, since the examiner exercises all the judgment and interpretation, while the patient is placed under an extremely low level of conscious control bordering on complete collapse.

After a period of five minutes, the revolving eyes will stop. As his pulse may stop too, the alert refractionist will do well to include an iron lung among his ophthalmic equipment. Your next step in the procedure is to place the fore finger of each hand against the cornea of each of the patient's eyes and jab slightly. This, of course, is to test for elasticity, and this "touch method" is extremely effective in young children or older women due to the presence of abnormally large tear ducts. . . .

With the degree of elasticity established, squirt each of the patient's eyes with lens cleaning fluid to eliminate any foreign bodies, place your "Charge for professional services rendered" in the patient's vest pocket, and call an ambulance.

In finality, gentlemen, should the patient, if and when he regains consciousness, complain of a slight reduction in vision; refer him to my Treatise, "Happiness in the Dark Through Braille."

OPTOMETRIC PATHOLOGY

Arthur O. Bruce, M. D.

Exophthalmos

Exophthalmos, also known as exophthalmus, proptosis, exophthalmic, and protrusion of the eyeball, is a fairly common condition which we should always keep in mind when making an ocular examination. It may be symptomatic of several causes, some of which are local and some general.

It is sometimes difficult to determine whether or not a patient has exophthalmos because of difference in the size of the palpebral fissure. If the fissure is wide, it exposes more of the globe than usual and may give the appearance of protrusion when none is present.

A number of instruments are used in measuring the protrusion of the eyeball from the orbit. These instruments are known as exophthalmometers. Some of them are very simple, some very complicated. Their use gives rise to a number of problems, the chief objection being the orbital wall, upon which the measurement is based, is not a fixed point. The simplest method is to place a straight-edge against the superior and inferior margins and look at it from the side of the patient's head. If the straight-edge clears the cornea we can be sure there is no proptosis, even if the eye is slightly prominent. The average protrusion, based on a large number of measurements, is between 12 mm. and 14 mm.

The following are some of the common causes:

- a. Oxycephal "Tower skull"
- b. Exophthalmic goitre
- c. Paralysis of the third and seventh nerves
- d. Sinus disorders
- e. Foreign body in the orbit
- f. Orbital hemorrhage
- g. Orbital cellulitis
- h. Orbital tumors
- i. Acromegaly

Probably the commonest cause is Grave's disease, Basedow's disease, or exophthalmic goitre. Other symptoms of this condition, to

be looked for beside the general symptoms of goitre and the exophthalmos, are the following signs. They may not all be present in the same case, but we look for them:

a. Von Graefe's Sign: Failure of the upper lid to follow the eyeball normally when the patient looks down; the upper eyelid lags behind.

b. Dalrymple's Sign: Abnormal widening of the palpebral fissure, causing a staring look.

c. Stellwag's Sign: Diminution of the normal involuntary power of winking, as a result of which the nictitation is imperfect, less frequent and regular than before.

d. Mobius' Sign: imperfect power of convergence, causing asthenopia.

e. Gifford's Sign: difficulty in everting the upper lid because of retraction and rigidity.

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Psychology in Optometry

(continued from page 4)

this. But it has been found that such diseases as ulcers, colitis, migraine, essential hypertension, bronchial asthma, a number of allergies and cardiac conditions are definitely psychosomatic. Many others about which we still know little, as for example glaucoma and retinal hemorrhage are suspected.

Peptic ulcer presents a good illustration of a psychosomatic ailment since it has been thoroughly studied and the role of the various specialists is well defined. There is here an extreme acidification of gastric juice in the stomach which acts not only on the food but also on the stomach mucosa causing erosion or ulcer. When these people are treated medically the physician prescribes a diet and tries to neutralize the acid. In certain instances where there is danger of perforation or hemorrhage, surgery in the form of resection may be indicated. But after the ulcer has been arrested either medically or surgically, the patient may return in a short time with another ulcer. Why? Because such people were emotionally ill to start with and their emotion illness is associated with gastric hypermobility. The true cause of their illness must therefore be ascertained and understood before they can really be helped.

Psychological exploration has revealed that these people as a whole tend to be very ambitious, keen, hardworking individuals, but beneath the surface they are inadequate to cope with the situation and find the going difficult. At times of stress they are especially likely to fall ill with an acute attack.

Certainly psychotherapy cannot remove the erosion of the stomach wall once it has occurred. But if the patient is treated medically and/or surgically, and if in addition the underlying dynamics become clear to him through psychotherapy, his chances of recovery are increased no end.

The ulcerative colitis patient is a case in point. The ulcerative colitis patient shows blood in the stool. Needless to say this is a most serious ailment.

When we explore these patients psychologically we find a pattern of aggressive, antagonistic reactions to their milieu. They are

suspicious and difficult to get along with, and as result they have few if any friends. They are quite poorly socialized and afraid to express affect. When they do, it tends to be explosive. When in cooperation with the Gastro-intestinal Clinic they are given psychotherapy, they tend to improve and the bloody diarrhea ceases.

Now I wish to lead up to an interesting analogy. In searching through the literature on psychosomatics as related to vision, I came across the following case. This is reported by Dr. Fritz Mohr in his *Psychophysische Behandlungsmethoden*. A series of retinal hemorrhages occurred in a teacher following the development of a psychosis in her sister. Ophthalmological treatment was of no avail. The hemorrhages ceased only when the patient acquired insight into the fact that she was expressing guilt feelings toward her sister in this manner. Her blood pressure which had obviously been psychogenically increased returned to normal after treatment. Groddeck in *Klinische Mitteilungen aus einer 20 jährigen psychotherapeutischen praxis*, discusses a case of retinal hemorrhage where he was able to trace and account for each reoccurrence on the basis of the patient's particular conflicts. At the time of his report and of course subsequent to psychotherapy the patient had no further trouble over a period of thirteen years. Sussmann in his *Psyche and Auge*, corroborates such findings and notes that hemorrhages of the retina may follow all sorts of emotions.

One might well ask here what sort of emotions result in retinal hemorrhages? Is there a definite personality pattern for one likely to become ill in this manner? The cases I have cited are mere beginnings in the search for relationships. Ophthalmologists and optometrists have not been too quick to enter the psychosomatic field. Certainly isolated practitioners have proposed interesting theories but systematic research has been lacking. For example, a number of investigators and I need only cite Sussmann, Inman, Seidel, Dumas, Lamach and Dubar, have claimed that attacks of glaucoma are precipitated by psychic excitation. Can it be that the latent disposition to glaucoma has its etiological basis in the unconscious? There are many questions, many theories and many possibilities. This is a fertile area for study. (to be continued)

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Below deck at the foot of the gangplank guests were greeted by Chancellor Ross and his First Lady (of the night), who informed them of the various points of interest throughout the vessel from the cocktail lounge (Standing Room Only was no joke down there), to the starlit topside.

Before long everyone was thoroughly at home in both these points of interest, and not a few found the ball room most enjoyable too. The strains of "Moonlight Serenade" mingled with the swishing of the surf and the sighing of the swooners as the Pilot skillfully navigated the Belle further and further away from Boston's low-slung, jagged skyline. On out into the buoy-bobbing darkness the sturdy craft proudly progressed while couples searched the seas for serpents or prowled around the prow in search of deck chairs not already put to use by ardent - - admirers of Neptune's splendor. So intent were these worshippers of Nature and so deep were the discussions which arose from the groups scattered about in the shadow of the smoke stacks that the poignant fragrance surrounding Garbage Island was scarcely noticed. At least no ill effects were suffered by those who held their breath for fifteen minutes while the boat crept on through its perfumed path.

It was discovered that there was a photographer aboard and when all fugitives from M.S.O. were rounded up for a group picture, we found that members of the faculty and alumni who were in on this gala event included Mr. Hargbol, Dave Yorra, Art Cowan and Joe McDermott.



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The "Hotsie Totsie" was enjoyed by some of the less dignified members of the party; firework displays from Revere's coastline thrilled others; and Romeo Goren serenaded from his balcony above the dance floor until the sudden sloping of the decks caused dancers a bit of difficulty and experienced travelers announced that we were changing our course and heading back to the mainland.

Next year M.S.O. boys will don their sea legs once again and hoist the sails for another journey along the New England coast, for it has been unanimously agreed that an affair of this kind deserves a permanent position on the Pi Omicron Sigma social calendar.

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